

## CENTRAL INTELLIGENCE AGENCY

## INFORMATION REPORT

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SECURITY INFORMATION

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COUNTRY	East Germany	REPORT	
SUBJECT	SAG Kabel Scientific Technical Office No. 3 (NTB-3) Development Projects	DATE DISTR.	29 July 1953
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1. The Russian director of NTB-3 of SAG Kabel<sup>1</sup> is M. A. Poryadin. There is also a Russian chief engineer, Koslov, (fnu). The German director-general is Schlegel, (fnu) and the German chief engineer is Dr. Weller, (fnu). The office employs approximately 425 people, including 200 engineers, technicians, and laboratory assistants. The office is divided into three main departments: one for HF work, one for measuring instruments, and one for regulating instruments. The last department is not as busy as the other two at the present time.
2. The research and development tasks on which NTB-3 works are tasks set by Russian ministries and offices. They reach NTB-3 through SAG Kabel Headquarters. Developed equipment is taken over by Russian uniformed officers who come from the USSR. Transport of equipment to the USSR is handled by Derutra.
3. In May 1953, NTB-3 was working on 51 tasks, some of which were set in 1952. The work on some is expected to continue until 1954. Tasks include development of:-
  - a gyro sextant
  - a cloud altimeter (Wolkenhoehenmesser)
  - a harmonic analyser
  - an ionosphere transmitter
  - an ionosphere reflection measuring instrument
  - a cathode-ray DF apparatus
  - equipment for the control of service quality of broadcasting stations

4. Development of a deep-sea echo device

One of the Germans employed in NTB-3, Hugo Pocher, was recently responsible for the development of a deep-sea echo device for the Russians. The

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equipment which he had developed left NTB-3 in February 1953, and, on 1 May 1953, Hugo Pocher was awarded a money prize for his work. When making the presentation to him, Schlegel made the statement that Pocher's device, with a range of 11,000 meters, was better than the American instrument, which had only a range of 6,000 meters.

##### 5. Details of some individual tasks

###### a. Task 36/5 M - Ionosphere transmitter

In early May 1953, the work on this was 56% finished. The apparatus consists of one each of the following parts:-

- crystal-controlled oscillator, 45 mcs
- crystal-controlled oscillator, 44.1 mcs
- mixing stage
- filter, 45 mcs
- variable oscillator, 45.5 - 77 mcs
- mixing stage
- broad-band preamplifier 0.5 - 32 mcs
- broad-band final amplifier, 0.5 - 32 mcs
- crystal-controlled frequency marking oscillator, 1 mc
- distorter
- mixing stage
- IF amplifier, 42 mcs
- mixing stage for the IF amplifier, 2.1 mcs
- rectifier
- Auftestroehre (sic)
- indicator
- impulse train generator 12.5 - 25 - 50 cps
- Tast-Geraet, 20 - 250 u/sec. (keying apparatus)
- height marking part
- relaxation oscillator (Kippgeraet) for the indicator
- push-pull input stage
- mixing stage
- IF amplifier 45 mcs
- mixing stage
- IF amplifier 900 kcs
- rectifier
- picture amplifier
- camera
- HT mains apparatus
- mains apparatus
- automatic tuning means (Automatik)

Work on this apparatus is at the moment hindered somewhat by lack of staff and by difficulties in procuring the necessary 4PR601 and 5D21 tubes.

###### b. Task 15/14M - Simple cathode-ray DF apparatus

The apparatus was handed over to Derutra on 11 February 1953. It consisted of:

- 4 frame aerials and 1 rod aerial
- 3 amplifiers for 2 to 12 kcs
- 1 display part (CRT)
- 1 photo-recording apparatus
- 1 intensity control (Hellsteuerung)
- 1 test generator
- 1 servicing field
- 1 frame for current supply

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- c. Task 10/26M - Apparatus for control of the quality of broadcasting station traffic (field strength meter)

The apparatus was 95% finished in April 1953, and the documents to accompany it were expected to be ready in that month also. The apparatus had the following main parts:

- 3 radio test receivers and
- 1 calibrating oscillator
- 3 field strength recording apparatuses
- 1 measuring instrument for the dynamic transmitter range
- 2 measuring instruments for degree of modulation measurement and continuous control
- 1 measuring instrument for non-linear distortion
- 1 apparatus for observing the LF spectrum to 5 or 15 kcs and recording the result
- 1 set of frame aeriels

- d. Task 37/6M - Ionosphere reflection meter

Although the laboratory sample was working, the whole task was only 29% ready by early May 1953.

- e. Task 51/78M

Work on this was delayed because two specialists, who were to have tested the blood pressure and breath volume measuring instruments, had not yet done so. Consequently, work on the auxiliary apparatus for measuring systolic and diastolic blood pressure, as requested by the customer, could not be undertaken.

- f. Task 57/121M

In developing this cloud height meter and in studying the most recent literature, it is clear that the apparatus must be able to measure various sorts of clouds. This was not at first foreseen. The task now cannot be finished before the fourth quarter of 1953.

- g. Task 68/144M

The work cannot yet be finished because the HF plant has been unable to supply a useable 5D21 valve and because it has been impossible to procure American 4PR valves, although these have been on order since December 1952.

- h. Task 56/119M

With one exception, the laboratory testing of the apparatus was finished on 30 April 1953. The exception was the testing in cold: the thermobarometric chamber of NTB-3 was not large enough for the apparatus, which would have to be tested in the larger installation of VEB Kuehlautomat.

- i. Task 51/14M

This was given over for despatch on 21 April 1953.

- j. Task 51/34M

In early May 1953, this was in the process of acceptance.

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k. Tasks 8/21M, 42/60M, 58/75M, 55/110M, 62/115M, 51/29M

In early May 1953, these were all ready for acceptance.

1.  Comment: NTB-3 of SAG Kabel, also known as WTBG (Wissenschaftlich-  
Technisches Bureau fuer Geraetebau), is located at Berlin O 112, Neue  
Bahnhofstrasse 7. 25X1
2.  Comment: VEB Kuehlautomat, Berlin-Johannisthal,  
Segelfliegerdamm 27/28. 25X1

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